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IS 3788 (1966): Specula, Aural [MHD 4: Ear, Nose and Throat Surgery Instruments]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS : 3788 - 1966

Indian Standard
SPECIFICATION FOR
SPECULA, AURAL

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SPECIFICATION FOR SPECULA, AURAL

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Indian Standard

SPECIFICATION FOR SPECULA, AURAL

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 26 October 1966, after the draft finalized by the Surgical Instruments Sectional Committee had been approved by the Consumer Products Division Council.

0.2 The formulation of Indian Standards on surgical instruments has been taken up on the recommendations of the Advisory Committee for Development of Surgical Instruments, Medical Equipment and Hospital Appliances of the Ministry of Industry, Government of India.

0.3 This standard, covering aural specula, Peter's type with its mount having an inflating system, Yarsley's type and Gruber's type, is expected to cater most of the requirements of specula in ENT work.

0.4 This Indian Standard is one of a series on surgical instruments. Other standards published so far in the series appear at page 8.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard covers the requirements of Peter's type aural specula with its mounting and inflating bulb, Yarsley's type and Gruber's type aural specula used in ENT work.

2. MATERIAL

2.1 The metal parts shall be fabricated from brass.

2.2 The lens shall be made of clear optical glass and shall be free from air bubbles, striæ, grinding marks, etc.

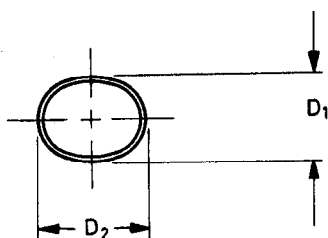
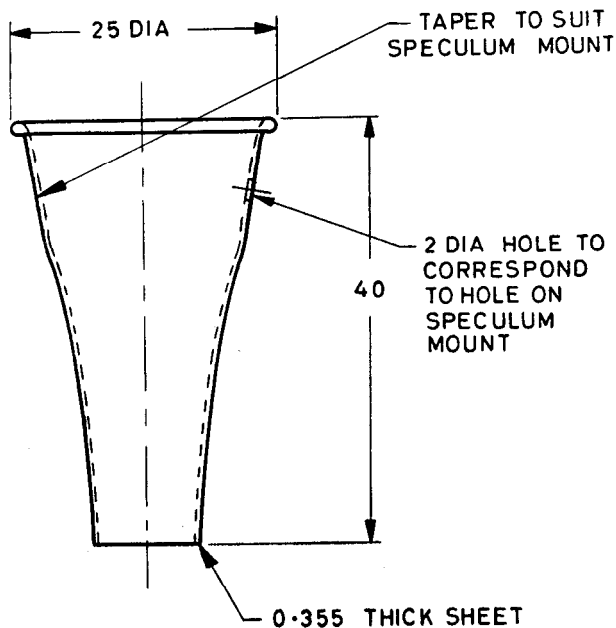
2.3 Inflating Bulb and Tube — The inflating bulb and tube shall be made of natural rubber. The bulb shall be ovoid in shape. The bulb may be securely fitted at one end with an air inlet non-return valve or the bulb may be without such a valve and other end fitted to the speculum mounting preferably by Luer lock (*see* IS : 3234-1965†).

*Rules for rounding off numerical values (revised).

†Specification for conical fitting for hypodermic syringes, needles and other medical equipment, Luer type.

3. SHAPE AND DIMENSIONS

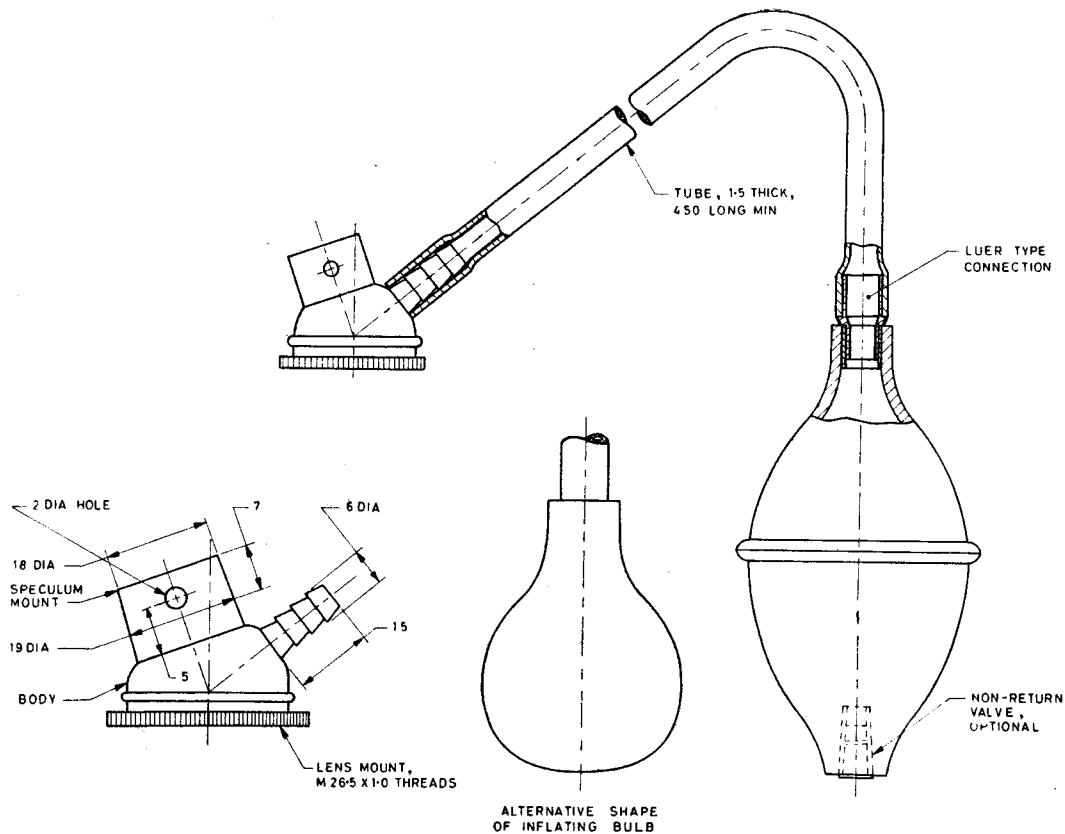
3.1 The shapes and dimensions shall generally conform to Fig. 1 to 4.



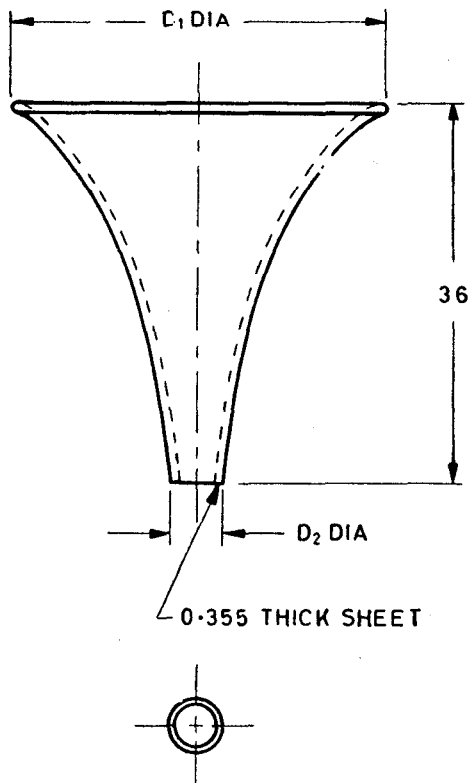
D_1	D_2	D_1	D_2
5.0	6.0	7.5	9.0
6.0	7.5	8.0	10.0

All dimensions in millimetres.

FIG. 1 SPECULUM, PETER'S PATTERN



All dimensions in millimetres.
FIG. 2 SPECULA MOUNTING WITH INFLATING BULB



D_1	D_2	D_1	D_2
34.5	5.5	35.5	8.0
35.0	7.0		

All dimensions in millimetres.

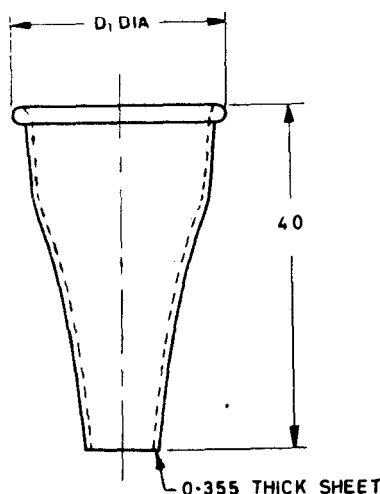
FIG. 3 SPECULUM, YARSLEY'S PATTERN

4. MANUFACTURE

4.1 The speculum shall be pressed or spun into shape, true and uniform. The mounting shall be cast and machined. The lens mount shall be machined.

5. WORKMANSHIP AND FINISH

5.1 The speculum and its mounting shall be finely polished and chromium plated over nickel. The interior surface of the speculum and the mounting shall have a non-reflecting finish. The speculum and the inflating bulb shall easily fit in the mounting, without any play. The Yarsley's pattern speculum shall be bronzed; the inside being non-reflecting.



D_1	D_2	D_3	D_1	D_2	D_3
20.0	4.0	4.5	23.0	6.0	6.5
21.5	4.5	5.0	24.5	7.5	8.5

All dimensions in millimetres.

FIG. 4 SPECULUM, GRUBER'S PATTERN

5.2 The focal length of the lens used in the mounting shall be 140 mm to 170 mm.

5.3 The plating shall conform to Grade C of IS : 1068-1958*.

6. MARKING

6.1 Each speculum shall be clearly and indelibly marked with the manufacturer's name, initials or trade-mark and the origin of manufacture.

6.1.1 The speculum may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the

*Specification for copper, nickel and chromium electroplated coatings.

Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

7. TEST

7.0 The Peter's type speculum and the mounting shall be tested as prescribed in **7.1**.

7.1 Test for Air Leaking — When completely assembled, the instrument shall be subjected to an internal air pressure of 150 mm of mercury. The instrument or the valve shall show no leaking of air when the air supply is closed. In performing this test the air holes on the mount and the speculum shall be staggered on assembly.

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*Under print.

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